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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,681	04/03/2000	Curtis M. Pleiss	M-8379US	4600

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EXAMINER

LE, KIMLIEN T

ART UNIT PAPER NUMBER

2653

DATE MAILED: 08/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/542,681

Applicant(s)

PLEISS ET AL.

Examiner

Kimlien T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 11-35 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 10, 11, 13
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. Applicant's election of Group I which includes claims 1-10 and 36 in Paper No. 19 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 11-35 and 37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 19.

Objections

3. Claim 36 is objected to because of the following informalities: In claim 36, line 1, "filed" should be --field--. The examiner interprets "filed" as field in the following action. ~~By~~ ~~the~~ ~~examiner~~ ~~requests~~ Applicants' cooperation is respectfully requested in further explaining how (in what fig.) the limitations of claims 5& 6 are depicted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-10 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuji et al. (EP 0 786 767).

Regarding claim 1, see Figs. 15-17 and 20 of Fuji et al. which show a spiral groove in an optical disk comprising: a wobble, the wobble being a sinusoidal deviation from the centerline of the groove; and a first plurality of sinusoidal marks located at zero crossings of the wobble; wherein the presence of one of the first plurality of sinusoidal marks at one of the zero crossings represents an active bit and the absence of one of the first plurality of sinusoidal marks at one of the zero crossings represents an inactive bit, a plurality of the active bits and the inactive bits representing an information field (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 2, see Fig. 20 of Fuji et al. which show the examiner interprets the amplitudes to be the same.

Regarding claim 3, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, wherein the first plurality of sinusoidal marks has a frequency greater than the frequency of the wobble (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 5, see Figs. 13, 15-17 and 20 of Fuji et al. which show the groove of claim 1, further comprising a second plurality of sinusoidal marks located at zero crossings of the wobble having a different phase than the first mark (See Fig. 13).

Regarding claim 6, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, further comprising a second plurality of sinusoidal marks located at zero crossings of the wobble having the same phase as the first sinusoidal mark (See Fig. 20).

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Regarding claim 7, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 6, wherein first plurality of sinusoidal marks and the second plurality of sinusoidal marks are adjacent to each other such that they are aligned in a radial direction (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 8, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, wherein the zero crossings are negative zero crossings (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 9, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, wherein the zero crossings are positive zero crossings (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 10, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, further comprising more than one sinusoidal mark in a single cycle of the wobble (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 36, see Figs. 15-17 and 20 of Fuji et al. which show the groove of claim 1, wherein the information field includes at least one of a synchronization mark, a sector information, and an error correction code (column 21, line 3 – column 22, line 6; Abstract).

5. Claims 1-3, 5-10 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Asano et al. (EP 0 969 452).

Regarding claim 1, see Figs. 2 and 11 of Asano et al. which shows a spiral groove in an optical disk comprising: a wobble, the wobble being a sinusoidal deviation from the centerline of the groove; and a first plurality of sinusoidal marks located at zero crossings of the wobble; wherein the presence of one of the first plurality of sinusoidal marks at one of the zero crossings

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represents an active bit and the absence of one of the first plurality of sinusoidal marks at one of the zero crossings represents an inactive bit, a plurality of the active bits and the inactive bits representing an information field (column 5, line 55 – column 6, line 23).

Regarding claim 2, see Figs. 2 and 11 of Asano et al. which show the groove of claim 1, wherein the first plurality of sinusoidal marks has the same amplitude as the wobble (column 5, line 55 – column 6, line 23).

Regarding claim 3, see Figs. 2 and 11 of Asano et al. which show the groove of claim 1, wherein the first plurality of sinusoidal marks has a frequency greater than the frequency of the wobble (column 5, line 55 – column 6, line 23).

Regarding claim 5, see Figs. 2 and 11 of Asano et al. which show the groove of claim 1, further comprising a second plurality of sinusoidal marks located at zero crossings of the wobble having a different phase than the first mark (column 21, line 3 – column 22, line 6; Abstract).

Regarding claim 6, see Figs. 2 and 11 of Asano et al. which show the groove of claim 1, further comprising a second plurality of sinusoidal marks located at zero crossings of the wobble having the same phase as the first sinusoidal mark (column 5, line 55 – column 6, line 23).

Regarding claim 7, see Figs. 2 and 11 of Asano et al. which show the groove of claim 6, wherein first plurality of sinusoidal marks and the second plurality of sinusoidal marks are adjacent to each other such that they are aligned in a radial direction (column 5, line 55 – column 6, line 23).

Regarding claim 8, see Figs. 2 and 11 of Asano et al. which show the groove of claim 1, wherein the zero crossings are negative zero crossings (column 5, line 55 – column 6, line 23).

With regards to claims 9, 10 and 36: see figures 2 and 11 of Asano et al and the description

at col. 5 lines 55 to col 6 line 23.

Claims Rejections – 35 USC § 103

The following is a quotation of 35 USC 103 (a), which forms the basis for all obviousness rejections set forth in this Office action.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 USC 103 (a) as being unpatentable over either Fuji et al or Asano et al. as stated above further considered with either of the Kobayashi et al documents ('985) or ('522).

With respect to Kobayashi et al ('985). This document recites that the frequencies should be greater than that chosen for the wobbling frequency. Selection of such is to ensure sufficient signal separation (i.e., the effects of noise due to cross over). Hence the selection of a particular range for the frequency (claimed 3 to 5 times) is considered merely a selection of alternatives and within the skill of the artisan, especially because such selection is considered an optimization of the system parameters.

With respect to Kobayashi et al ('522) note the passages at col. 5 lines 55-66 wherein the examiner interprets the 3.5 to 4 waves as meeting the 3 to 5 times limitation of claim 4.

It would have been obvious to modify the base system of either primary reference as relied upon above with the additional teaching from either of the Kobayashi et al document(s), motivation is to ensure proper signal separation for better signal detection as identified in either of the documents.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be direct to Kimlien T Le whose telephone number is (703) 305-3498. The examiner can normally be reached on M-F 8 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,
Mr. William Korzuch can be reached on (703) 305- 6137.

The fax number for the organization to which this application or proceedings is assigned are
is (703) 872-9306.

Any inquiry of a general nature should be directed to the receptionist whose telephone number
is (703) 305-3900.

Kimlien Le
August 19, 2003

ARISTOTELIS M. PSITOS
PRIMARY EXAMINER

